

Claims

What is claimed is:

1. A mounting device for a securing a control unit to a vehicle comprising:

an outer supporting structure formed from a non-resilient material that is adapted to be attached to a vehicle; and

a layer of resilient material disposed within and attached to said outer structure, said resilient material being adapted to be placed adjacent to the control unit whereby said resilient material absorbs noise and vibrations.
2. The mounting device according to claim 1 further including an inner supporting structure formed from a non-resilient material that is attached to a surface of said layer of resilient material that is opposite from said outer supporting structure, said inner structure being adapted to be attached to the control unit.
3. The mounting device according to claim 2 wherein the resilient material is a polymer that is attached to said outer and inner supporting structures.
4. The mounting device according to claim 3 wherein said polymer is rubber and said outer and inner supporting structures are formed from steel.
5. The mounting device according to claim 4 wherein said layer of resilient material is adhesively bonded to said outer and inner supporting structures.

6. The mounting device according to claim 4 wherein said inner and outer supporting structures are generally U-shaped and form a bracket that is adapted to secure the control unit to a vehicle.

7. The mounting device according to claim 6 wherein the control unit is an electronic control unit that is attached to a hydraulic valve body to form an electro-hydraulic control unit and further wherein said inner and outer supporting structures are generally U-shaped and form a bracket that is adapted to secure said electro-hydraulic control unit to a vehicle

8. The mounting device according to claim 1 wherein the resilient material is a polymer that is attached to said outer supporting structure.

9. The mounting device according to claim 8 wherein said polymer is rubber and said outer supporting structure is formed from steel.

10. The mounting device according to claim 9 wherein said layer of resilient material is adhesively bonded to said outer supporting structure.

11. The mounting device according to claim 9 wherein said outer supporting structure is generally U-shaped and forms a bracket that is adapted to secure the electro-hydraulic control unit to a vehicle.

12. The mounting device according to claim 1 wherein said resilient material is adapted to be received within a corresponding bore formed in the electro-hydraulic control unit.

13. The mounting device according to claim 12 wherein said outer structure includes a threaded portion that extends from the mounting bracket and is adapted to secure the device to a vehicle.

14. The mounting device according to claim 12 wherein said outer structure includes a threaded bore formed therein that receives a threaded fastener that is adapted to secure the device to a vehicle.

15. The mounting device according to claim 1 further including an inner structure that has a threaded portion adapted to be received in a corresponding threaded bore formed in an electro-hydraulic control unit.

16. A control unit for a vehicle comprising:

an outer supporting structure formed from a non-resilient material that is adapted to be attached to a vehicle;

a layer of resilient material disposed within and attached to said outer structure; and

an electronic control unit for controlling a vehicle system disposed within said layer of resilient material whereby said resilient material absorbs noise and vibrations.

17. The control unit according to claim 16 further including an inner supporting structure formed from a non-resilient material that is attached to a surface of said layer of resilient material that is opposite from said outer supporting structure, said inner structure being attached to said electronic control unit.

18. The control unit according to claim 17 further including a hydraulic valve body attached to said electronic control unit to form an electro-hydraulic control unit, the electro-hydraulic control unit being attached to said inner supporting structure.

19. A process for fabricating a mounting device for attaching a control unit to a vehicle comprising the steps of:

- (a) providing a sheet of laminated material having at least one layer of resilient material bonded to at least one layer of non-resilient material;
- (b) punching at least one aperture through the sheet of laminated material;
- (c) stamping at least one flat blank from the sheet of laminated material with the stamped blank including at least one of the apertures formed in step (b);
- (d) forming the blank into a bracket.

20. The process according to claim 19 further including mounting a control unit on the bracket.

21. The process according to claim 20 further including attaching the combined control unit and bracket to a vehicle.

22. The process according to claim 20 further including, subsequent to step (d) and before mounting the control unit on the bracket, applying a coating to the bracket to inhibit formation of rust.